

**AUDIO-VIDEO SYSTEMS WITH APPLICATION SPECIFIC MODULES  
AND COMMON PROCESSING SOFTWARE ARCHITECTURE**

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**ABSTRACT OF THE DISCLOSURE**

(55) An audio/visual (A/V) system utilizes a software architecture partitioned between application specific code and common processing code. For example, in an audio context, decoder code represents an embodiment of application specific code and post-processing operations such as bass control, tone control, volume control, and mute represent common processing code. The A/V system also utilizes a RISC processor to control communication between a digital signal processor (DSP) and peripheral devices. A/V system 300 uses a first-in-first-out (FIFO) memory buffer to store communications between the RISC processor and DSP. The FIFO is preferably sufficiently large to allow the RISC processor and DSP to operate at their own respective paces. A/V system 300 also utilizes a standard command word and a manager for each DSP application that allows the RISC and DSP to easily exchange information.